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DT07 Rec'd PCT/PTO 07 FEB 2003



Attorney Docket No. SCHWP0158US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of:

Applicant: Prof. Dr.-Ing. Carl Kramer

Serial No: 10/070,651

Filed: March 8, 2002

Title: METHOD FOR HEAT TREATING METALLIC EXTRUSION BILLETS

LETTER

Commissioner for Patents
U.S. Patent and Trademark Office
Washington, D.C. 20231

Dear Sir:

Enclosed is a copy of an English language translation of the International Preliminary Examination Report.

Respectfully submitted,

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By

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CERTIFICATE OF MAILING

I hereby certify that this paper (along with any paper or item referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first-class mail in an envelope addressed to Commissioner for Patents, U.S. Patent and Trademark Office, Washington, D.C. 20231.

Date:

1-31-03

Jennifer A. Moore

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 53 110 X	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP00/08828	International filing date (day/month/year) 08 September 2000 (08.09.00)	Priority date (day/month/year) 10 September 1999 (10.09.99)
International Patent Classification (IPC) or national classification and IPC C22F 1/05		
Applicant INGENIEURGEMEINSCHAFT WSP PROF. DR. ING. C. KRAMER PROF. DR. ING. H.J. GERHARDT M.S.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 6 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 6 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 03 April 2001 (03.04.01)	Date of completion of this report 03 December 2001 (03.12.2001)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP00/08828

I. Basis of the report

1. With regard to the elements of the international application:*

- ☐ the international application as originally filed
- ☒ the description:
pages _____ 1-23 _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☒ the claims:
pages _____, as originally filed
pages _____, as amended (together with any statement under Article 19
pages _____, filed with the demand
pages _____ 1-16 _____, filed with the letter of 24 October 2001 (24.10.2001)
- ☒ the drawings:
pages _____ 1/10-8/10, 10/10 _____, as originally filed
pages _____, filed with the demand
pages _____ 9/10 _____, filed with the letter of 24.10.01
- ☐ the sequence listing part of the description:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP 00/08828

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-4, 6, 7, 10, 12, 13, 15	YES
	Claims	5, 8, 9, 11, 14, 16	NO
Inventive step (IS)	Claims	1-3, 7, 12, 13	YES
	Claims	4-6, 8-11, 14-16	NO
Industrial applicability (IA)	Claims	1-16	YES
	Claims		NO

2. Citations and explanations

1. Reference is made to the following document:

D1: WO-A-94/19124

2. The problem addressed by the invention is that of devising methods of heat-treating metal slugs or billet sections before they are introduced into the extruder, and that of producing devices for carrying out the method which permit very rapid heat treatment which is also highly precise in terms of the temperature pattern, the heat treatment comprising **reheating and cooling** (see page 7, final paragraph).

3a. The method according to Claims 1 to 4 and 6 and the device according to Claims 7, 10, 12, 13 and 15 have not already been described by any of the search report citations.

Therefore Claims 1 to 4, 6, 7, 10, 12, 13 and 15 meet the requirements of PCT Article 33(2).

Furthermore, for solving the problem of interest, a person skilled in the art could not derive anything from the search report citations which would prompt him to proceed

according to the method as per Claims 1 to 3 or the device as per Claims 7, 12 and 13.

Therefore Claims 1 to 3, 7, 12 and 13 meet the requirements of PCT Article 33(3).

b. D1 describes a method of heat-treating a slug, wherein, immediately after preceding rapid heating, abrupt cooling with individual water spray jets is carried out, the axes of the latter being directed radially to the horizontal axis of the material to be treated and the jets being operable individually or in groups at different pressures and/or different operating times (see pages 5 to 7).

Therefore the method according to Claim 5 is not novel (PCT Article 33(2)).

c. A device displaying all the structural features of Claim 8 is already known from D1 (see pages 5 to 7 and Figures 1, 2 and 4). Therefore the device according to Claim 8 is not novel (PCT Article 33(2)).

d. The structural features of Claims 11, 14 and 16 (insofar as these claims refer to Claim 8) are also known from D1 (see pages 5 to 7 and Figures 1, 2 and 4).

Therefore the device according to Claims 11, 14 and 16 is also not novel (PCT Article 33(2)).

e. Recuperator burners in which each recuperator for pre-heating combustion air is integrated individually in each burner and the burner jets emerge at high speed from the burner nozzle, in particular at least some of the recuperator burners being able to be operated in the flox combustion mode, are generally known (see page 12,

paragraphs 2 and 3, of the description).

These burners are also suitable for heat treating a cast, homogenized metal slug immediately before it is introduced into a pressing device.

Therefore the subject matter of Claim 9 is not novel (PCT Article 33(2)).

f. Since Claim 4 has not mentioned any cooling, the method in this claim does not solve the above problem.

Therefore the subject matter of Claim 4 does not involve an inventive step (PCT Article 33(3)).

g. The features in Claims 6, 10 and 15 (insofar as these claims refer to Claims 5, 8 and 9) are generally conventional in this technical field and, moreover, nothing unconventional can be discerned in the features of these claims as concerns the solving of the above problem in light of the prior art.

Consequently the subjects of these claims do not involve any inventive step (PCT Article 33(3)).